Sampling Episode Report
Princess Cruise Lines
Island Princess
Sampling Episode 6505

Chapter 5
Data Quality

March 2006

5.0 DATA QUALITY

Quality assurance/quality control (QA/QC) procedures applicable to the Island sampling episode are outlined in the *Quality Assurance Project Plan for Rulemaking Support for Large Cruise Ships in Alaska Waters (QAPP),* which can be found in the Cruise Ship Rulemaking Record and is available upon request. This section describes the quality control practices used to assess the precision and accuracy of the analytical data presented in Section 4.0. Quality control (QC) practices used for this sampling episode include the analysis of matrix spikes, duplicate samples, and quality control standard checks.

5.1 Analytical Quality Control

EPA verified that laboratory performace was acceptable by conducting quality d control checks of the analytical data as specified by the QAPP. Data review chemists prepared written data review narratives (Appendix D) describing any qualifications of the analytical data. The following data were not considered to be of acceptable quality for the reasons discussed in Appendix D and were excluded from the data set:

- Three organics:
  - 2-Chloroethylvinyl ether in samples 65715, 65719, 65731, and 65741,
  - Hexachlorocyclopentadiene in sample 65719, and
  - Benzidine in sample 65749.

- *E. coli,* enterococci, and fecal coliform in samples 65731, 65733, and 65737;

- Biological oxygen demand in samples 65607, 65627, 65647, 65667, 65707, and 65727; and
- Settleable residue in samples 65607, 65627, 65647, 65667, 65707, and 65727.

There was uncertainty regarding the analytical results for available and total cyanide. Although these data have not been excluded from the database, the results are presented in Table 5-1 and not in the analytical results summary tables in Section 4.1. Available cyanide was detected in many samples, while total cyanide was not detected in these samples. In theory, the total cyanide result for any given sample will be greater than the available cyanide results in the same sample. Because it was not possible to determine which analysis was correct, EPA flagged the irreconcilable results in the database to alert data users to the presence of such problems (see memoranda *Data Review Narrative for Classical Analytes for the Alaska Cruise Ship Industry Episode 6505* and *Issues Associated with Results for Total Cyanide Versus Available Cyanide* in Appendix D for a complete discussion).

EPA did not identify any known source of cyanide onboard the Island during its onboard interviews regarding activities that impact wastewater generation.

5.2 Field Quality Control

The trip blank, equipment blank, and field duplicate results are the field QA/QC measures discussed in this subsection. Section 3.8 of the Island SAP discusses field QC specifications. Tables presented in this section include results for only those analytes detected in the respective field QC samples during the sampling episode. Appendices A-1 and A-2 contain the results for all analytes, both detected and nondetected.

5.2.1 Trip Blank

A trip blank was collected and analyzed for volatile organics to evaluate possible contamination during shipment and handling of samples. This sample consisted of high performance liquid chromatography (HPLC) water. The trip blank was prepared prior to the

start of the sampling episode, and accompanied samples shipped to the laboratory on September 2, 2004.

No volatile organics were detected in the trip blank, indicating that there was no contamination of samples during transport, field handling, storage, or shipping. (Note that there is no table with the results of the analyses in this section of the report because all results are nondetects.)

5.2.2 Equipment Blank

The sampling team collected an equipment blank to assess the potential introduction of contaminants by sample collection equipment. The sample collection equipment used to collect the equipment blank was the same as that used at the sampling points: approximately 4 feet of Teflon® tubing connected on one end to a series of metal plumbing fixtures installed on each sample port, and the other end to a small segment of silicone tubing used in the peristaltic pump mechanism of the automatic sampler. The equipment blank was collected by pumping HPLC water through this equipment directly into sample bottles.

Table 5-2 presents the detected results for the equipment blank. Six total metals and seven dissolved metals were detected in the equipment blank. In tables presenting the analytical results in Section 4.1, all 13 of these metals and hardness are flagged with an "(e)" to indicate they were detected in the equipment blank. EPA will consider the impact of possible contamination from equipment in a future analysis.

5.2.3 Field Duplicates

Field duplicate samples were collected to assess the precision of the entire sample collection, handling, preparation, and analysis process. The relative percent difference (RPD) between the two duplicate sample results is calculated and compared to the data quality objective. For this program, the QAPP provides an RPD target of field duplicate samples as less than 30% for all analytes of a specific analytical method.

Classical Pollutants, Total and Dissolved Metals, and Semivolatile Organics

For classical pollutants, total and dissolved metals, and semivolatile organics, field duplicate samples were samples collected from the same source, at the same time, then stored and analyzed independently. The duplicate samples were collected as split samples poured from the same mixed sample composite jars to minimize sample wastestream variability. Duplicate samples for these analytes were collected from the effluent from the wastewater treatment system (SP-6/7). Note that duplicate samples for dioxin and furans and pesticide analytes were collected during a previous sampling episode, and duplicate samples for HEM/SGT-HEM were not planned for this sampling program.

Table 5-3 presents analytical results and the RPDs for these duplicate samples and includes analytical results for only those analytes that were detected at least once in wastewater samples during the sampling episode.

There was excellent precision in sampling and analysis for this sampling episode. Of the 207 duplicate pairs listed in Table 5-3, 178 either achieved the RPD target, or the RPD could not be calculated because both of the duplicate samples were less than the detection limit. The RDP could not be calculated for 18 of the duplicate pairs because the analyte was detected in one sample but not the other. Analytical variability increases as analyte concentrations approach their detection limits. The 11 duplicate pairs with an RDP outside of the target (i.e., $\geq$30% difference) include one of the three duplicate pairs for each of total aluminum, total iron, total nickel, total selenium, and phenol, one of four duplicate pairs for dissolved sodium, two of three duplicate pairs for total mercury, and three of four duplicate pairs for dissolved selenium. These results are not uncommon in complex wastewater samples.

In tables presenting the analytical results in Section 4.1, duplicate sample results are presented as averages (calculation uses detection limits for nondetected results).

Pathogen Indicators and Volatile Organics

For pathogen indicators and volatile organics, field duplicate samples were collected sequentially and not as split samples as was done for the other analytes. For these samples, this methodology introduced sample wastestream variability into the assessment of the precision of sample collection and analysis. Duplicate samples for these analytes were collected from the effluent from the treatment system (SP-6/7). Table 5-4 presents analytical results and the RPDs for these duplicate samples. Of the 42 duplicate pairs, 41 either achieved the RPD target, or the RPD could not be calculated because both of the duplicate samples were less than the detection limit. The RDP could not be calculated for one of the duplicate pairs because the analyte, *E. coli*, was detected in one sample but not the other. Analytical variability increases as analyte concentrations approach their detection limits.

In tables presenting the analytical results in Section 4.1, duplicate sample results are presented as averages (calculation uses detection limits for nondetected results). In the case of pathogen indicators, average daily results presented incorporate both duplicate grab samples and multiple grab samples collected for individual analysis during each 24-hour sampling period. First, duplicate results, where applicable, were averaged to determine the average individual grab sample results for that sample (e.g., grab 1 duplicate sample results for Day 3 were averaged together to represent the average grab 1 sample result for Day 3). Next, the individual grab sample results for each day were averaged to calculate the average daily pathogen indicators results presented in the tables (e.g., grab sample results 1 through 3 for Day 3 were averaged together to calculate the average Day 3 pathogen indicators sample results). In this way, the average daily pathogen indicators results presented in the tables are weighted equally by time of day, rather than weighted more heavily by the particular time of day when duplicate grab samples were collected.

Table 5-1

Available and Total Cyanide Analytical Results, Island Princess

Available and total cyanide analytical results are irreconcilable; see Section 5.1.

Waste Stream	Available Cyanide (ug/L)	Total Cyanide (mg/L)
Galley (SP-1), Day 1	ND(2.00)	ND(0.00500)
Galley (SP-1), Day 2	ND(2.00)	ND(0.00500)
Galley (SP-1), Day 3	ND(2.00)	ND(0.00500)
Galley (SP-1), Day 4	2.23	ND(0.00500)
Galley (SP-1), Day 5	2.84	ND(0.00500)
Laundry (SP-2), Day 1	NC	ND(0.00500)
Laundry (SP-2), Day 2	ND(2.00)	ND(0.00500)
Laundry (SP-2), Day 3	ND(2.00)	ND(0.00500)
Laundry (SP-2), Day 4	ND(2.00)	ND(0.00500)
Laundry (SP-2), Day 5	ND(2.00)	ND(0.00500)
Accommodations (SP-3), Day 1	3.13	ND(0.00500)
Accommodations (SP-3), Day 2	ND(2.00)	ND(0.00500)
Accommodations (SP-3), Day 3	ND(2.00)	ND(0.00500)
Accommodations (SP-3), Day 4	2.28	ND(0.00500)
Accommodations (SP-3), Day 5	ND(2.00)	ND(0.00500)
Influent to Treatment (SP-4), Day 1	ND(2.00)	ND(0.00500)
Influent to Treatment (SP-4), Day 2	ND(2.00)	ND(0.00500)
Influent to Treatment (SP-4), Day 3	30.7	ND(0.00500)
Influent to Treatment (SP-4), Day 4	ND(2.00)	ND(0.00500)
Influent to Treatment (SP-4), Day 5	ND(2.00)	ND(0.00500)
Effluent from Treatment (SP-6), Day 1	ND(2.00)	ND(0.00500)
Effluent from Treatment (SP-6), Day 2	ND(2.00)	ND(0.00500)
Effluent from Treatment (SP-6), Day 3	ND(2.00)	ND(0.00500)
Effluent from Treatment (SP-6), Day 4	ND(2.00)	ND(0.00500)
Effluent from Treatment (SP-6), Day 5	ND(2.00)	ND(0.00500)
Screening Solids (SP-11)	149	ND(1.00)
Biosludge (SP-12)	15.2	0.0110
Source Water (SP-14)	ND(2.00)	ND(0.00500)

ND - Not detected (number in parentheses is detection limit).
NC - Not collected.

Table 5-2

Equipment Blank Analytical Results, Island Princess

Analytical results for analytes detected in the equipment blank. See Appendix A-2 for all analytical results (detected and nondetected). The equipment blank was collected as a one-time grab sample. Priority pollutants (designated by EPA in 40 CFR Part 423, Appendix A) are identified where applicable.

Analyte	Unit	Priority Pollutant Code	Equipment Blank (SP-16)
Total and Dissolved Metals			
Barium, Total	ug/L		4.00
Beryllium, Total	ug/L	P117	0.150
Lead, Total	ug/L	P122	4.00
Manganese, Total	ug/L		2.00
Mercury, Total	ug/L	P123	0.0200
Zinc, Total	ug/L	P128	11.0
Barium, Dissolved	ug/L		28.3
Copper, Dissolved	ug/L	P120	3.60
Lead, Dissolved	ug/L	P122	23.7
Manganese, Dissolved	ug/L		1.10
Mercury, Dissolved	ug/L	P123	0.0200
Thallium, Dissolved	ug/L	P127	0.0200
Zinc, Dissolved	ug/L	P128	25.8

Table 5-3

Field Duplicate Analytical Results for Classical Pollutants, Total and Dissolved Metals, and Semivolatile Organics, Island Princess

Field duplicate analytical results for classical pollutants, total and dissolved metals, and semivolatile organics, detected at least once in wastewater samples during the sampling episode. See Appendix A-2 for all field duplicate analytical results (detected and nondetected). Field duplicate samples for these analytes are split samples collected from the same source, at the same time, stored and analyzed independently. See Figure 2-2 for sampling point locations. Also listed are the average result and relative percent difference calculated for each duplicate pair. Priority pollutants (designed by EPA in 40 CFR Part 423) are listed where applicable.

Analyte	Unit	Priority Pollutant Code	Sample Numbers (a)		Original Effluent from Treatment (SP-6) (b)	Duplicate Effluent from Treatment (SP-7) (b)	Average	Relative Percent Difference
Classical Pollutants								
Alkalinity	mg/L		65699	65719	218	211	215	3.3
Alkalinity	mg/L		65703	65723	203	179	191	13
Alkalinity	mg/L		65707	65727	204	203	204	0.49
Ammonia As Nitrogen (NH3-N) (s)	mg/L		65699	65719	46.0	48.6	47.3	5.5
Ammonia As Nitrogen (NH3-N) (s)	mg/L		65703	65723	38.2	38.0	38.1	0.52
Ammonia As Nitrogen (NH3-N) (s)	mg/L		65707	65727	42.3	42.8	42.6	1.2
Available Cyanide	ug/L		65691	65711	ND (2.00)	ND (2.00)	ND (2.00)	NC
Available Cyanide	ug/L		65695	65715	ND (2.00)	ND (2.00)	ND (2.00)	NC
Available Cyanide	ug/L		65699	65719	ND (2.00)	ND (2.00)	ND (2.00)	NC
Biochemical Oxygen Demand (BOD_5)	mg/L		65691	65711	ND (2.00)	ND (2.00)	ND (2.00)	NC
Biochemical Oxygen Demand (BOD_5)	mg/L		65695	65715	ND (2.00)	ND (2.00)	ND (2.00)	NC
Biochemical Oxygen Demand (BOD_5)	mg/L		65707	65727	EXCLUDE	EXCLUDE	EXCLUDE	NC

(a) Sample numbers identify corresponding analytical results in Appendix A-2.
(b) Sampling point location; see Figure 2-2.
(e) Analyte detected at some level in the equipment blank. See Section 5.2.2 and Table 5-2 for equipment blank results.
(s) Analyte detected at some level in the source water. See Section 4.1.7 and Table 4-12 for source water results.
EXCLUDE - Data excluded from the data set (see data review narratives in Appendix D for details).
ND - Not detected (number in parentheses is detection limit).
NC - Not calculated because one or both of the sample results is less than the laboratory detection limit .
< - Average result includes at least one nondetect value (calculation uses detection limits for nondetected results).

Table 5-3 (Continued)

Analyte	Unit	Priority Pollutant Code	Sample Numbers (a)		Original Effluent from Treatment (SP-6) (b)	Duplicate Effluent from Treatment (SP-7) (b)	Average	Relative Percent Difference
Chemical Oxygen Demand (COD)	mg/L		65699	65719	76.0	71.0	73.5	6.8
Chemical Oxygen Demand (COD)	mg/L		65703	65723	61.0	68.0	64.5	11
Chemical Oxygen Demand (COD)	mg/L		65707	65727	67.0	67.0	67.0	0.0
Chloride	mg/L		65699	65719	1,320	1,310	1,320	0.76
Chloride	mg/L		65703	65723	942	962	952	2.1
Chloride	mg/L		65707	65727	797	787	792	1.3
Hardness (s)	mg/L		65691	65711	307	313	310	1.9
Hardness (s)	mg/L		65695	65715	356	362	359	1.7
Hardness (s)	mg/L		65703	65723	332	325	329	2.1
Nitrate/Nitrite (NO2-N + NO3-N)	mg/L		65699	65719	ND (0.0500)	ND (0.0500)	ND (0.0500)	NC
Nitrate/Nitrite (NO2-N + NO3-N)	mg/L		65703	65723	ND (0.0500)	ND (0.0500)	ND (0.0500)	NC
Nitrate/Nitrite (NO2-N + NO3-N)	mg/L		65707	65727	ND (0.0500)	ND (0.0500)	ND (0.0500)	NC
Settleable Residue	mL/L		65691	65711	ND (0.100)	ND (0.100)	ND (0.100)	NC
Settleable Residue	mL/L		65695	65715	ND (0.100)	ND (0.100)	ND (0.100)	NC
Settleable Residue	mL/L		65753	65764	ND (0.100)	ND (0.100)	ND (0.100)	NC
Settleable Residue	mL/L		65707	65727	EXCLUDE	EXCLUDE	EXCLUDE	NC
Sulfate	mg/L		65699	65719	182	178	180	2.2
Sulfate	mg/L		65703	65723	128	130	129	1.6
Sulfate	mg/L		65707	65727	112	108	110	3.6

(a) Sample numbers identify corresponding analytical results in Appendix A-2.
(b) Sampling point location; see Figure 2-2.
(e) Analyte detected at some level in the equipment blank. See Section 5.2.2 and Table 5-2 for equipment blank results.
(s) Analyte detected at some level in the source water. See Section 4.1.7 and Table 4-12 for source water results.
EXCLUDE - Data excluded from the data set (see data review narratives in Appendix D for details).
ND - Not detected (number in parentheses is detection limit).
NC - Not calculated because one or both of the sample results is less than the laboratory detection limit .
< - Average result includes at least one nondetect value (calculation uses detection limits for nondetected results).

Table 5-3 (Continued)

Analyte	Unit	Priority Pollutant Code	Sample Numbers (a)		Original Effluent from Treatment (SP-6) (b)	Duplicate Effluent from Treatment (SP-7) (b)	Average	Relative Percent Difference
Total Cyanide	mg/L	P121	65691	65711	ND (0.00500)	ND (0.00500)	ND (0.00500)	NC
Total Cyanide	mg/L	P121	65695	65715	ND (0.00500)	ND (0.00500)	ND (0.00500)	NC
Total Cyanide	mg/L	P121	65699	65719	ND (0.00500)	ND (0.00500)	ND (0.00500)	NC
Total Dissolved Solids (TDS)	mg/L		65699	65719	2,540	2,650	2,600	4.2
Total Dissolved Solids (TDS)	mg/L		65703	65723	1,530	1,850	1,690	19
Total Dissolved Solids (TDS)	mg/L		65707	65727	1,550	1,600	1,580	3.2
Total Kjeldahl Nitrogen (TKN) (s)	mg/L		65699	65719	54.3	52.0	53.2	4.3
Total Kjeldahl Nitrogen (TKN) (s)	mg/L		65703	65723	44.1	43.5	43.8	1.4
Total Kjeldahl Nitrogen (TKN) (s)	mg/L		65707	65727	46.8	46.0	46.4	1.7
Total Organic Carbon (TOC)	mg/L		65699	65719	16.0	16.9	16.5	5.5
Total Organic Carbon (TOC)	mg/L		65703	65723	14.0	15.3	14.7	8.9
Total Organic Carbon (TOC)	mg/L		65707	65727	16.0	14.4	15.2	11
Total Phosphorus	mg/L		65699	65719	8.10	8.10	8.10	0.0
Total Phosphorus	mg/L		65703	65723	7.80	7.10	7.45	9.4
Total Phosphorus	mg/L		65707	65727	7.90	8.60	8.25	8.5
Total Suspended Solids (TSS)	mg/L		65699	65719	ND (5.00)	ND (5.00)	ND (5.00)	NC
Total Suspended Solids (TSS)	mg/L		65703	65723	ND (5.00)	ND (5.00)	ND (5.00)	NC
Total Suspended Solids (TSS)	mg/L		65707	65727	32.0	ND (5.00)	< 18.5	NC

(a) Sample numbers identify corresponding analytical results in Appendix A-2.
(b) Sampling point location; see Figure 2-2.
(e) Analyte detected at some level in the equipment blank. See Section 5.2.2 and Table 5-2 for equipment blank results.
(s) Analyte detected at some level in the source water. See Section 4.1.7 and Table 4-12 for source water results.
EXCLUDE - Data excluded from the data set (see data review narratives in Appendix D for details).
ND - Not detected (number in parentheses is detection limit).
NC - Not calculated because one or both of the sample results is less than the laboratory detection limit .
< - Average result includes at least one nondetect value (calculation uses detection limits for nondetected results).

Table 5-3 (Continued)

Analyte	Unit	Priority Pollutant Code	Sample Numbers (a)		Original Effluent from Treatment (SP-6) (b)	Duplicate Effluent from Treatment (SP-7) (b)	Average	Relative Percent Difference
Total and Dissolved Metals								
Aluminum, Total	ug/L		65691	65711	28.0	ND (9.93)	< 19.0	NC
Aluminum, Total	ug/L		65695	65715	62.0	35.0	48.5	56
Aluminum, Total	ug/L		65703	65723	ND (9.93)	ND (9.93)	ND (9.93)	NC
Aluminum, Dissolved	ug/L		65691	65711	ND (9.93)	46.5	< 28.2	NC
Aluminum, Dissolved	ug/L		65695	65715	ND (9.93)	ND (9.93)	ND (9.93)	NC
Aluminum, Dissolved	ug/L		65699	65719	ND (9.93)	ND (9.93)	ND (9.93)	NC
Aluminum, Dissolved	ug/L		65703	65723	53.6	46.1	49.9	15
Antimony, Total	ug/L	P114	65691	65711	ND (5.97)	ND (5.97)	ND (5.97)	NC
Antimony, Total	ug/L	P114	65695	65715	ND (5.97)	ND (5.97)	ND (5.97)	NC
Antimony, Total	ug/L	P114	65703	65723	ND (5.97)	ND (5.97)	ND (5.97)	NC
Barium, Total (e)	ug/L		65691	65711	6.00	6.00	6.00	0.0
Barium, Total (e)	ug/L		65695	65715	6.00	6.00	6.00	0.0
Barium, Total (e)	ug/L		65703	65723	4.50	4.30	4.40	4.5
Barium, Dissolved (e)	ug/L		65691	65711	6.00	6.10	6.05	1.7
Barium, Dissolved (e)	ug/L		65695	65715	6.30	6.70	6.50	6.2
Barium, Dissolved (e)	ug/L		65699	65719	5.80	5.80	5.80	0.0
Barium, Dissolved (e)	ug/L		65703	65723	4.50	4.60	4.55	2.2
Beryllium, Total (e)	ug/L	P117	65691	65711	ND (0.0540)	ND (0.0540)	ND (0.0540)	NC

(a) Sample numbers identify corresponding analytical results in Appendix A-2.
(b) Sampling point location; see Figure 2-2.
(e) Analyte detected at some level in the equipment blank. See Section 5.2.2 and Table 5-2 for equipment blank results.
(s) Analyte detected at some level in the source water. See Section 4.1.7 and Table 4-12 for source water results.
EXCLUDE - Data excluded from the data set (see data review narratives in Appendix D for details).
ND - Not detected (number in parentheses is detection limit).
NC - Not calculated because one or both of the sample results is less than the laboratory detection limit .
< - Average result includes at least one nondetect value (calculation uses detection limits for nondetected results).

Table 5-3 (Continued)

Analyte	Unit	Priority Pollutant Code	Sample Numbers (a)		Original Effluent from Treatment (SP-6) (b)	Duplicate Effluent from Treatment (SP-7) (b)	Average	Relative Percent Difference
Beryllium, Total (e)	ug/L	P117	65695	65715	ND (0.0540)	ND (0.0540)	ND (0.0540)	NC
Beryllium, Total (e)	ug/L	P117	65703	65723	ND (0.0540)	ND (0.0540)	ND (0.0540)	NC
Boron, Total	ug/L		65691	65711	306	327	317	6.6
Boron, Total	ug/L		65695	65715	348	343	346	1.4
Boron, Total	ug/L		65703	65723	353	340	347	3.8
Boron, Dissolved	ug/L		65691	65711	294	335	315	13
Boron, Dissolved	ug/L		65695	65715	365	366	366	0.27
Boron, Dissolved	ug/L		65699	65719	385	391	388	1.5
Boron, Dissolved	ug/L		65703	65723	335	ND (3.37)	< 169	NC
Cadmium, Total	ug/L	P118	65691	65711	ND (0.446)	ND (0.446)	ND (0.446)	NC
Cadmium, Total	ug/L	P118	65695	65715	ND (0.446)	ND (0.446)	ND (0.446)	NC
Cadmium, Total	ug/L	P118	65703	65723	ND (0.446)	ND (0.446)	ND (0.446)	NC
Calcium, Total (s)	ug/L		65691	65711	28,600	28,900	28,800	1.0
Calcium, Total (s)	ug/L		65695	65715	31,700	32,000	31,900	0.94
Calcium, Total (s)	ug/L		65703	65723	31,600	30,900	31,300	2.2
Calcium, Dissolved (s)	ug/L		65691	65711	28,400	29,100	28,800	2.4
Calcium, Dissolved (s)	ug/L		65695	65715	33,800	33,800	33,800	0.0
Calcium, Dissolved (s)	ug/L		65699	65719	37,700	38,000	37,900	0.79
Calcium, Dissolved (s)	ug/L		65703	65723	31,100	31,000	31,100	0.32

(a) Sample numbers identify corresponding analytical results in Appendix A-2.
(b) Sampling point location; see Figure 2-2.
(e) Analyte detected at some level in the equipment blank. See Section 5.2.2 and Table 5-2 for equipment blank results.
(s) Analyte detected at some level in the source water. See Section 4.1.7 and Table 4-12 for source water results.
EXCLUDE - Data excluded from the data set (see data review narratives in Appendix D for details).
ND - Not detected (number in parentheses is detection limit).
NC - Not calculated because one or both of the sample results is less than the laboratory detection limit .
< - Average result includes at least one nondetect value (calculation uses detection limits for nondetected results).

Table 5-3 (Continued)

Analyte	Unit	Priority Pollutant Code	Sample Numbers (a)		Original Effluent from Treatment (SP-6) (b)	Duplicate Effluent from Treatment (SP-7) (b)	Average	Relative Percent Difference
Chromium, Total	ug/L	P119	65691	65711	ND (1.68)	ND (1.68)	ND (1.68)	NC
Chromium, Total	ug/L	P119	65695	65715	ND (1.68)	ND (1.68)	ND (1.68)	NC
Chromium, Total	ug/L	P119	65703	65723	ND (1.68)	ND (1.68)	ND (1.68)	NC
Chromium, Dissolved	ug/L	P119	65691	65711	ND (1.68)	ND (1.68)	ND (1.68)	NC
Chromium, Dissolved	ug/L	P119	65695	65715	ND (1.68)	ND (1.68)	ND (1.68)	NC
Chromium, Dissolved	ug/L	P119	65699	65719	ND (1.68)	ND (1.68)	ND (1.68)	NC
Chromium, Dissolved	ug/L	P119	65703	65723	ND (1.68)	ND (1.68)	ND (1.68)	NC
Cobalt, Total	ug/L		65691	65711	ND (0.914)	ND (0.914)	ND (0.914)	NC
Cobalt, Total	ug/L		65695	65715	1.00	ND (0.914)	< 0.957	NC
Cobalt, Total	ug/L		65703	65723	ND (0.914)	ND (0.914)	ND (0.914)	NC
Cobalt, Dissolved (s)	ug/L		65691	65711	ND (0.914)	1.20	< 1.06	NC
Cobalt, Dissolved (s)	ug/L		65695	65715	ND (0.914)	ND (0.914)	ND (0.914)	NC
Cobalt, Dissolved (s)	ug/L		65699	65719	ND (0.914)	ND (0.914)	ND (0.914)	NC
Cobalt, Dissolved (s)	ug/L		65703	65723	2.00	ND (0.914)	< 1.46	NC
Copper, Total (s)	ug/L	P120	65691	65711	15.0	15.4	15.2	2.6
Copper, Total (s)	ug/L	P120	65695	65715	19.0	18.0	18.5	5.4
Copper, Total (s)	ug/L	P120	65703	65723	15.5	15.0	15.3	3.3
Copper, Dissolved (e) (s)	ug/L	P120	65691	65711	13.2	14.5	13.9	9.4
Copper, Dissolved (e) (s)	ug/L	P120	65695	65715	17.2	17.6	17.4	2.3

(a) Sample numbers identify corresponding analytical results in Appendix A-2.
(b) Sampling point location; see Figure 2-2.
(e) Analyte detected at some level in the equipment blank. See Section 5.2.2 and Table 5-2 for equipment blank results.
(s) Analyte detected at some level in the source water. See Section 4.1.7 and Table 4-12 for source water results.
EXCLUDE - Data excluded from the data set (see data review narratives in Appendix D for details).
ND - Not detected (number in parentheses is detection limit).
NC - Not calculated because one or both of the sample results is less than the laboratory detection limit .
< - Average result includes at least one nondetect value (calculation uses detection limits for nondetected results).

Table 5-3 (Continued)

Analyte	Unit	Priority Pollutant Code	Sample Numbers (a)		Original Effluent from Treatment (SP-6) (b)	Duplicate Effluent from Treatment (SP-7) (b)	Average	Relative Percent Difference
Copper, Dissolved (e) (s)	ug/L	P120	65699	65719	12.4	13.7	13.1	10
Copper, Dissolved (e) (s)	ug/L	P120	65703	65723	14.0	14.8	14.4	5.6
Iron, Total	ug/L		65691	65711	164	165	165	0.61
Iron, Total	ug/L		65695	65715	175	175	175	0.0
Iron, Total	ug/L		65703	65723	272	143	208	62
Iron, Dissolved (s)	ug/L		65691	65711	ND (19.8)	163	< 91.4	NC
Iron, Dissolved (s)	ug/L		65695	65715	ND (19.8)	ND (19.8)	ND (19.8)	NC
Iron, Dissolved (s)	ug/L		65699	65719	ND (19.8)	ND (19.8)	ND (19.8)	NC
Iron, Dissolved (s)	ug/L		65703	65723	148	168	158	13
Lead, Total (e)	ug/L	P122	65691	65711	ND (3.08)	ND (3.08)	ND (3.08)	NC
Lead, Total (e)	ug/L	P122	65695	65715	ND (3.08)	ND (3.08)	ND (3.08)	NC
Lead, Total (e)	ug/L	P122	65703	65723	ND (3.08)	ND (3.08)	ND (3.08)	NC
Lead, Dissolved (e)	ug/L	P122	65691	65711	ND (3.08)	ND (3.08)	ND (3.08)	NC
Lead, Dissolved (e)	ug/L	P122	65695	65715	ND (3.08)	ND (3.08)	ND (3.08)	NC
Lead, Dissolved (e)	ug/L	P122	65699	65719	ND (3.08)	ND (3.08)	ND (3.08)	NC
Lead, Dissolved (e)	ug/L	P122	65703	65723	ND (3.08)	ND (3.08)	ND (3.08)	NC
Magnesium, Total (s)	ug/L		65691	65711	57,300	58,500	57,900	2.1
Magnesium, Total (s)	ug/L		65695	65715	67,200	68,400	67,800	1.8
Magnesium, Total (s)	ug/L		65703	65723	61,500	60,100	60,800	2.3

(a) Sample numbers identify corresponding analytical results in Appendix A-2.
(b) Sampling point location; see Figure 2-2.
(e) Analyte detected at some level in the equipment blank. See Section 5.2.2 and Table 5-2 for equipment blank results.
(s) Analyte detected at some level in the source water. See Section 4.1.7 and Table 4-12 for source water results.
EXCLUDE - Data excluded from the data set (see data review narratives in Appendix D for details).
ND - Not detected (number in parentheses is detection limit).
NC - Not calculated because one or both of the sample results is less than the laboratory detection limit .
< - Average result includes at least one nondetect value (calculation uses detection limits for nondetected results).

Table 5-3 (Continued)

Analyte	Unit	Priority Pollutant Code	Sample Numbers (a)		Original Effluent from Treatment (SP-6) (b)	Duplicate Effluent from Treatment (SP-7) (b)	Average	Relative Percent Difference
Magnesium, Dissolved (s)	ug/L		65691	65711	56,800	58,200	57,500	2.4
Magnesium, Dissolved (s)	ug/L		65695	65715	73,200	73,200	73,200	0.0
Magnesium, Dissolved (s)	ug/L		65699	65719	77,800	78,200	78,000	0.51
Magnesium, Dissolved (s)	ug/L		65703	65723	60,800	60,600	60,700	0.33
Manganese, Total (e)	ug/L		65691	65711	19.0	19.4	19.2	2.1
Manganese, Total (e)	ug/L		65695	65715	19.0	19.0	19.0	0.0
Manganese, Total (e)	ug/L		65703	65723	18.8	18.1	18.5	3.8
Manganese, Dissolved (e) (s)	ug/L		65691	65711	21.5	20.6	21.1	4.3
Manganese, Dissolved (e) (s)	ug/L		65695	65715	23.2	24.3	23.8	4.6
Manganese, Dissolved (e) (s)	ug/L		65699	65719	24.0	22.2	23.1	7.8
Manganese, Dissolved (e) (s)	ug/L		65703	65723	20.3	18.5	19.4	9.3
Mercury, Total (e) (s)	ug/L	P123	65691	65711	0.0200	0.0300	0.0250	40
Mercury, Total (e) (s)	ug/L	P123	65695	65715	0.0200	0.0900	0.0550	130
Mercury, Total (e) (s)	ug/L	P123	65703	65723	0.0300	0.0300	0.0300	0.0
Mercury, Dissolved (e) (s)	ug/L	P123	65691	65711	ND (0.0170)	0.0400	< 0.0285	NC
Mercury, Dissolved (e) (s)	ug/L	P123	65695	65715	ND (0.0170)	ND (0.0170)	ND (0.0170)	NC
Mercury, Dissolved (e) (s)	ug/L	P123	65699	65719	ND (0.0170)	ND (0.0170)	ND (0.0170)	NC
Mercury, Dissolved (e) (s)	ug/L	P123	65703	65723	0.0300	ND (0.0170)	< 0.0235	NC
Nickel, Total	ug/L	P124	65691	65711	12.0	13.2	12.6	9.5

(a) Sample numbers identify corresponding analytical results in Appendix A-2.
(b) Sampling point location; see Figure 2-2.
(e) Analyte detected at some level in the equipment blank. See Section 5.2.2 and Table 5-2 for equipment blank results.
(s) Analyte detected at some level in the source water. See Section 4.1.7 and Table 4-12 for source water results.
EXCLUDE - Data excluded from the data set (see data review narratives in Appendix D for details).
ND - Not detected (number in parentheses is detection limit).
NC - Not calculated because one or both of the sample results is less than the laboratory detection limit .
< - Average result includes at least one nondetect value (calculation uses detection limits for nondetected results).

Table 5-3 (Continued)

Analyte	Unit	Priority Pollutant Code	Sample Numbers (a)		Original Effluent from Treatment (SP-6) (b)	Duplicate Effluent from Treatment (SP-7) (b)	Average	Relative Percent Difference
Nickel, Total	ug/L	P124	65695	65715	12.0	11.0	11.5	8.7
Nickel, Total	ug/L	P124	65703	65723	18.7	12.4	15.6	41
Nickel, Dissolved (s)	ug/L	P124	65691	65711	12.4	13.2	12.8	6.2
Nickel, Dissolved (s)	ug/L	P124	65695	65715	11.7	11.0	11.4	6.2
Nickel, Dissolved (s)	ug/L	P124	65699	65719	19.4	19.2	19.3	1.0
Nickel, Dissolved (s)	ug/L	P124	65703	65723	13.7	14.5	14.1	5.7
Selenium, Total (s)	ug/L	P125	65691	65711	26.0	15.8	20.9	49
Selenium, Total (s)	ug/L	P125	65695	65715	29.0	26.0	27.5	11
Selenium, Total (s)	ug/L	P125	65703	65723	32.8	31.5	32.2	4.0
Selenium, Dissolved	ug/L	P125	65691	65711	49.2	14.7	32.0	110
Selenium, Dissolved	ug/L	P125	65695	65715	34.8	52.3	43.6	40
Selenium, Dissolved	ug/L	P125	65699	65719	77.2	67.0	72.1	14
Selenium, Dissolved	ug/L	P125	65703	65723	35.7	23.8	29.8	40
Silver, Total	ug/L	P126	65691	65711	ND (1.28)	ND (1.28)	ND (1.28)	NC
Silver, Total	ug/L	P126	65695	65715	ND (1.28)	ND (1.28)	ND (1.28)	NC
Silver, Total	ug/L	P126	65703	65723	ND (1.28)	ND (1.28)	ND (1.28)	NC
Sodium, Total (s)	ug/L		65691	65711	488,000	512,000	500,000	4.8
Sodium, Total (s)	ug/L		65695	65715	575,000	591,000	583,000	2.7
Sodium, Total (s)	ug/L		65703	65723	514,000	496,000	505,000	3.6

(a) Sample numbers identify corresponding analytical results in Appendix A-2.
(b) Sampling point location; see Figure 2-2.
(e) Analyte detected at some level in the equipment blank. See Section 5.2.2 and Table 5-2 for equipment blank results.
(s) Analyte detected at some level in the source water. See Section 4.1.7 and Table 4-12 for source water results.
EXCLUDE - Data excluded from the data set (see data review narratives in Appendix D for details).
ND - Not detected (number in parentheses is detection limit).
NC - Not calculated because one or both of the sample results is less than the laboratory detection limit .
< - Average result includes at least one nondetect value (calculation uses detection limits for nondetected results).

Table 5-3 (Continued)

Analyte	Unit	Priority Pollutant Code	Sample Numbers (a)		Original Effluent from Treatment (SP-6) (b)	Duplicate Effluent from Treatment (SP-7) (b)	Average	Relative Percent Difference
Sodium, Dissolved (s)	ug/L		65691	65711	619,000	472,000	546,000	27
Sodium, Dissolved (s)	ug/L		65695	65715	1,350,000	629,000	990,000	73
Sodium, Dissolved (s)	ug/L		65699	65719	681,000	666,000	674,000	2.2
Sodium, Dissolved (s)	ug/L		65703	65723	480,000	480,000	480,000	0.0
Thallium, Total	ug/L	P127	65691	65711	ND (0.00900)	0.0100	< 0.00950	NC
Thallium, Total	ug/L	P127	65695	65715	ND (0.00900)	ND (0.00900)	ND (0.00900)	NC
Thallium, Total	ug/L	P127	65703	65723	ND (0.00900)	ND (0.00900)	ND (0.00900)	NC
Thallium, Dissolved (e)	ug/L	P127	65691	65711	ND (0.00900)	ND (0.00900)	ND (0.00900)	NC
Thallium, Dissolved (e)	ug/L	P127	65695	65715	ND (0.00900)	ND (0.00900)	ND (0.00900)	NC
Thallium, Dissolved (e)	ug/L	P127	65699	65719	ND (0.00900)	ND (0.00900)	ND (0.00900)	NC
Thallium, Dissolved (e)	ug/L	P127	65703	65723	ND (0.00900)	ND (0.00900)	ND (0.00900)	NC
Tin, Total	ug/L		65691	65711	ND (3.45)	ND (3.45)	ND (3.45)	NC
Tin, Total	ug/L		65695	65715	ND (3.45)	ND (3.45)	ND (3.45)	NC
Tin, Total	ug/L		65703	65723	ND (3.45)	ND (3.45)	ND (3.45)	NC
Tin, Dissolved	ug/L		65691	65711	ND (3.45)	ND (3.45)	ND (3.45)	NC
Tin, Dissolved	ug/L		65695	65715	ND (3.45)	ND (3.45)	ND (3.45)	NC
Tin, Dissolved	ug/L		65699	65719	ND (3.45)	ND (3.45)	ND (3.45)	NC
Tin, Dissolved	ug/L		65703	65723	ND (3.45)	ND (3.45)	ND (3.45)	NC
Titanium, Total	ug/L		65691	65711	ND (0.253)	ND (0.253)	ND (0.253)	NC

(a) Sample numbers identify corresponding analytical results in Appendix A-2.
(b) Sampling point location; see Figure 2-2.
(e) Analyte detected at some level in the equipment blank. See Section 5.2.2 and Table 5-2 for equipment blank results.
(s) Analyte detected at some level in the source water. See Section 4.1.7 and Table 4-12 for source water results.
EXCLUDE - Data excluded from the data set (see data review narratives in Appendix D for details).
ND - Not detected (number in parentheses is detection limit).
NC - Not calculated because one or both of the sample results is less than the laboratory detection limit .
< - Average result includes at least one nondetect value (calculation uses detection limits for nondetected results).

Table 5-3 (Continued)

Analyte	Unit	Priority Pollutant Code	Sample Numbers (a)		Original Effluent from Treatment (SP-6) (b)	Duplicate Effluent from Treatment (SP-7) (b)	Average	Relative Percent Difference
Titanium, Total	ug/L		65695	65715	ND (0.253)	ND (0.253)	ND (0.253)	NC
Titanium, Total	ug/L		65703	65723	ND (0.253)	ND (0.253)	ND (0.253)	NC
Titanium, Dissolved	ug/L		65691	65711	ND (0.253)	ND (10.0)	ND (5.13)	NC
Titanium, Dissolved	ug/L		65695	65715	ND (0.253)	ND (0.253)	ND (0.253)	NC
Titanium, Dissolved	ug/L		65699	65719	ND (0.253)	ND (0.253)	ND (0.253)	NC
Titanium, Dissolved	ug/L		65703	65723	ND (10.0)	ND (10.0)	ND (10.0)	NC
Vanadium, Total	ug/L		65691	65711	ND (0.679)	1.10	< 0.890	NC
Vanadium, Total	ug/L		65695	65715	ND (0.679)	ND (0.679)	ND (0.679)	NC
Vanadium, Total	ug/L		65703	65723	0.830	ND (0.679)	< 0.755	NC
Vanadium, Dissolved	ug/L		65691	65711	ND (0.679)	1.50	< 1.09	NC
Vanadium, Dissolved	ug/L		65695	65715	ND (0.679)	ND (0.679)	ND (0.679)	NC
Vanadium, Dissolved	ug/L		65699	65719	ND (0.679)	1.10	< 0.890	NC
Vanadium, Dissolved	ug/L		65703	65723	ND (0.679)	0.710	< 0.695	NC
Zinc, Total (e) (s)	ug/L	P128	65691	65711	211	233	222	9.9
Zinc, Total (e) (s)	ug/L	P128	65695	65715	217	211	214	2.8
Zinc, Total (e) (s)	ug/L	P128	65703	65723	230	221	226	4.0
Zinc, Dissolved (e) (s)	ug/L	P128	65691	65711	218	227	223	4.0
Zinc, Dissolved (e) (s)	ug/L	P128	65695	65715	209	208	209	0.48
Zinc, Dissolved (e) (s)	ug/L	P128	65699	65719	150	151	151	0.66

(a) Sample numbers identify corresponding analytical results in Appendix A-2.
(b) Sampling point location; see Figure 2-2.
(e) Analyte detected at some level in the equipment blank. See Section 5.2.2 and Table 5-2 for equipment blank results.
(s) Analyte detected at some level in the source water. See Section 4.1.7 and Table 4-12 for source water results.
EXCLUDE - Data excluded from the data set (see data review narratives in Appendix D for details).
ND - Not detected (number in parentheses is detection limit).
NC - Not calculated because one or both of the sample results is less than the laboratory detection limit .
< - Average result includes at least one nondetect value (calculation uses detection limits for nondetected results).

Table 5-3 (Continued)

Analyte	Unit	Priority Pollutant Code	Sample Numbers (a)		Original Effluent from Treatment (SP-6) (b)	Duplicate Effluent from Treatment (SP-7) (b)	Average	Relative Percent Difference
Zinc, Dissolved (e) (s)	ug/L	P128	65703	65723	220	224	222	1.8
Semivolatile Organics								
Bis(2-ethylhexyl) Phthalate	ug/L	P066	65691	65711	ND (10.0)	ND (10.0)	ND (10.0)	NC
Bis(2-ethylhexyl) Phthalate	ug/L	P066	65695	65715	ND (10.0)	16.7	< 13.4	NC
Bis(2-ethylhexyl) Phthalate	ug/L	P066	65699	65719	18.9	ND (10.0)	< 14.5	NC
Phenol (s)	ug/L	P065	65691	65711	81.4	90.2	85.8	10
Phenol (s)	ug/L	P065	65695	65715	84.0	52.3	68.2	47
Phenol (s)	ug/L	P065	65699	65719	111	106	109	4.6

(a) Sample numbers identify corresponding analytical results in Appendix A-2.
(b) Sampling point location; see Figure 2-2.
(e) Analyte detected at some level in the equipment blank. See Section 5.2.2 and Table 5-2 for equipment blank results.
(s) Analyte detected at some level in the source water. See Section 4.1.7 and Table 4-12 for source water results.
EXCLUDE - Data excluded from the data set (see data review narratives in Appendix D for details).
ND - Not detected (number in parentheses is detection limit).
NC - Not calculated because one or both of the sample results is less than the laboratory detection limit .
< - Average result includes at least one nondetect value (calculation uses detection limits for nondetected results).

Table 5-4

Field Duplicate Analytical Results for Pathogen Indicators and Volatile Organics, Island Princess

Field duplicate analytical results presented for pathogen indicators and volatile organics detected at least once during the sampling episode. Field duplicate samples were collected sequentially from the same source, stored and analyzed independently. See Figure 2-2 for sampling point locations. Also listed are the average result and relative percent difference calculated for each duplicate pair. Priority pollutants (designated by EPA in 40 CFR Part 423, Appendix A) are identified where applicable.

Analyte	Unit	Priority Pollutant Code	Sample Numbers (a)		Original Effluent from Treatment (SP-6) (b)	Duplicate Effluent from Treatment (SP-7) (b)	Average	Relative Percent Difference
Pathogen Indicators								
E. coli	MPN/100 mL		65691	65766	ND (1.00)	ND (1.00)	ND (1.00)	NC
E. coli	MPN/100 mL		65691	65711	ND (1.00)	ND (1.00)	ND (1.00)	NC
E. coli	MPN/100 mL		65695	65715	ND (1.00)	ND (1.00)	ND (1.00)	NC
E. coli	MPN/100 mL		65695	65763	ND (1.00)	ND (1.00)	ND (1.00)	NC
E. coli	MPN/100 mL		65699	65719	ND (1.00)	ND (1.00)	ND (1.00)	NC
E. coli	MPN/100 mL		65699	65765	ND (1.00)	ND (1.00)	ND (1.00)	NC
E. coli	MPN/100 mL		65703	65767	ND (1.00)	ND (1.00)	ND (1.00)	NC
E. coli	MPN/100 mL		65703	65723	ND (1.00)	ND (1.00)	ND (1.00)	NC
E. coli	MPN/100 mL		65703	65762	ND (1.00)	1.00	ND (1.00)	NC
Enterococci	MPN/100 mL		65691	65711	ND (1.00)	ND (1.00)	ND (1.00)	NC
Enterococci	MPN/100 mL		65691	65766	ND (1.00)	ND (1.00)	ND (1.00)	NC
Enterococci	MPN/100 mL		65695	65715	ND (1.00)	ND (1.00)	ND (1.00)	NC
Enterococci	MPN/100 mL		65695	65763	ND (1.00)	ND (1.00)	ND (1.00)	NC
Enterococci	MPN/100 mL		65699	65765	ND (1.00)	ND (1.00)	ND (1.00)	NC
Enterococci	MPN/100 mL		65699	65719	ND (1.00)	ND (1.00)	ND (1.00)	NC
Enterococci	MPN/100 mL		65703	65723	ND (1.00)	ND (1.00)	ND (1.00)	NC

(a) Sample numbers identify corresponding analytical results in Appendix A-2.
(b) Sampling point location; see Figure 2-2.
ND - Not detected (number in parentheses is detection limit).
NC - Not calculated because one or both of the sample results is less than the laboratory detection limit.

Table 5-4 (Continued)

Analyte	Unit	Priority Pollutant Code	Sample Numbers (a)		Original Effluent from Treatment (SP-6) (b)	Duplicate Effluent from Treatment (SP-7) (b)	Average	Relative Percent Difference
Enterococci	MPN/100 mL		65703	65762	ND (1.00)	ND (1.00)	ND (1.00)	NC
Enterococci	MPN/100 mL		65703	65767	ND (1.00)	ND (1.00)	ND (1.00)	NC
Fecal Coliform	CFU/100 mL		65691	65711	ND (2.00)	ND (2.00)	ND (2.00)	NC
Fecal Coliform	CFU/100 mL		65691	65766	ND (2.00)	ND (2.00)	ND (2.00)	NC
Fecal Coliform	CFU/100 mL		65695	65763	ND (2.00)	ND (2.00)	ND (2.00)	NC
Fecal Coliform	CFU/100 mL		65695	65715	ND (2.00)	ND (2.00)	ND (2.00)	NC
Fecal Coliform	CFU/100 mL		65699	65765	ND (2.00)	ND (2.00)	ND (2.00)	NC
Fecal Coliform	CFU/100 mL		65699	65719	ND (2.00)	ND (2.00)	ND (2.00)	NC
Fecal Coliform	CFU/100 mL		65703	65762	ND (2.00)	ND (2.00)	ND (2.00)	NC
Fecal Coliform	CFU/100 mL		65703	65723	ND (2.00)	ND (2.00)	ND (2.00)	NC
Fecal Coliform	CFU/100 mL		65703	65767	ND (2.00)	ND (2.00)	ND (2.00)	NC
Volatile Organics								
Chloroform	ug/L	P023	65691	65711	ND (10.0)	ND (10.0)	ND (10.0)	NC
Chloroform	ug/L	P023	65695	65715	ND (10.0)	ND (10.0)	ND (10.0)	NC
Chloroform	ug/L	P023	65699	65719	ND (10.0)	ND (10.0)	ND (10.0)	NC
Methylene Chloride	ug/L	P044	65691	65711	ND (10.0)	ND (10.0)	ND (10.0)	NC
Methylene Chloride	ug/L	P044	65695	65715	ND (10.0)	ND (10.0)	ND (10.0)	NC
Methylene Chloride	ug/L	P044	65699	65719	ND (10.0)	ND (10.0)	ND (10.0)	NC
Tetrachloroethene	ug/L	P085	65691	65711	ND (10.0)	ND (10.0)	ND (10.0)	NC
Tetrachloroethene	ug/L	P085	65695	65715	ND (10.0)	ND (10.0)	ND (10.0)	NC
Tetrachloroethene	ug/L	P085	65699	65719	ND (10.0)	ND (10.0)	ND (10.0)	NC
Toluene	ug/L	P086	65691	65711	ND (10.0)	ND (10.0)	ND (10.0)	NC

(a) Sample numbers identify corresponding analytical results in Appendix A-2.
(b) Sampling point location; see Figure 2-2.
ND - Not detected (number in parentheses is detection limit).
NC - Not calculated because one or both of the sample results is less than the laboratory detection limit.

Table 5-4 (Continued)

Analyte	Unit	Priority Pollutant Code	Sample Numbers (a)		Original Effluent from Treatment (SP-6) (b)	Duplicate Effluent from Treatment (SP-7) (b)	Average	Relative Percent Difference
Toluene	ug/L	P086	65695	65715	ND (10.0)	ND (10.0)	ND (10.0)	NC
Toluene	ug/L	P086	65699	65719	ND (10.0)	ND (10.0)	ND (10.0)	NC

(a) Sample numbers identify corresponding analytical results in Appendix A-2.
(b) Sampling point location; see Figure 2-2.
ND - Not detected (number in parentheses is detection limit).
NC - Not calculated because one or both of the sample results is less than the laboratory detection limit.